

REMARKS

Claims 1-11 and 15-17 are pending in this patent application. Claims 1-11 are currently amended. Claims 15-17 are new. Claims 12-14 are cancelled. No new matter has been introduced.

Applicants' invention, as now more clearly claimed is a composite textile fabric formed by concurrently knitting a plaited construction comprising a first fabric layer and a second fabric layer. Each of the first and second fabric layers is distinct and separate, but the fabric layers are intimately plaited together in a unitary body. The inner fabric layer is formed of yarn comprising synthetic yarn fibers rendered hydrophilic and defines a surface configured to be worn facing a wearer's skin. The outer fabric layer is formed of a material selected from the group consisting of: a moisture absorbent material, a plurality of synthetic yarn fibers, and a combination thereof, and defines a surface to be worn as an outer surface of a garment. The outer fabric layer is disposed immediately adjacent to, and in intimate contact with, the inner fabric layer for movement of moisture between the first fabric layer and the second fabric layer. The surface of the inner fabric layer comprises discrete pillar regions of relatively deeper pile, the discrete pillar regions of relatively deeper pile being spaced apart and isolated from each other by regions of relatively shorter pile or no pile that form a plurality of intersecting channels passing among the discrete pillar regions and open to the wearer's skin, the channels defining insulation regions to contain a cushion of air for promoting warmth under static conditions during periods of wearer inactivity and defining circulation regions creating avenues for flow of air and enhanced evaporation of moisture from the skin of the wearer for creating a heat dissipation or cooling effect during periods of physical activity by the wearer.

Claims 1-4, 6, 7, 12, and 14 stand rejected under 35 U.S.C. §103(a) as being obvious and therefore unpatentable over Rock et al. U.S. 5,817,391 in view of Lumb et al. U.S. 5,312,667. The rejection is respectfully traversed.

The combination of Rock et al. '391 and Lumb et al. '667 does not teach, nor suggest, the features of Applicants' invention as now more clearly recited in claim 1.

In particular, Rock et al. '391 describes a three dimensional knit spacer fabric for bed pads (Title, col. 1, line 29). The fabric consists of a first fabric layer spaced from a second fabric layer by an interconnecting yarn. The interconnecting yarn has sufficient resilience and stiffness to keep the layers apart even under the pressure of the human body supported thereon (col. 1, lines 33-36), e.g. 15 to 20 pounds per square foot (col. 2, lines 15-20). The interconnecting yarns are sufficiently spaced apart in the region between the first and second fabric layers to allow air flow laterally throughout the fabric to prevent bedsores (col. 3, lines 1-5).

Contrary to the assertion by the Examiner, the first and second fabric layers in the three dimensional structure of Rock et al. '391, where the layers are held spaced from collapse and contact by the intervening pile yarns, cannot properly be equated with the inner and outer fabric layers of the Applicants' invention in which "a composite textile fabric formed by concurrently knitting a plaited construction [comprises] an inner fabric layer and an outer fabric layer, the inner fabric layer and the outer fabric layer each being distinct and separate but intimately plaited together in an unitary body ... the outer fabric layer being disposed immediately adjacent to, and in intimate contact with, the inner fabric layer for movement of moisture between the inner fabric layer and the outer fabric layer." Thus the first and second layers of Rock et al. '391 cannot properly be "equated" with Applicants' inner and outer layers, as proposed by the Examiner, at least not without application of impermissible hindsight, as the relationships between the layers of the respective fabrics are markedly different.

Furthermore, it therefore is highly inaccurate to refer, as does the Examiner, to the fabric of Rock et al. '391 as "a plaited constructed." According to common terminology, and as defined by Webster's New Collegiate Dictionary (1980), "plaiting" means "interlacing of strands." In the fabric of Applicants' invention, yarns of the inner and outer layers are plaited, i.e. interlaced, and together to form a unitary body with intimate contact between the layers for removal of moisture. In contrast, in Rock et al. '391, the first and second fabric layers are kept spaced apart, for the purpose of providing a lateral region for airflow between the layers, and there is no interlacing of layers.

The Examiner proposes to combine Rock et al. '391 with Lumb et al. '667 to create a plaited construction. However, this proposed reconstruction of the three dimensional fabric taught by Rock et al. '391 would do away with the objective and aim of Rock et al. '391, i.e., to provide a bed pad with lateral airflow between fabric layers. If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The proposed combination of Rock et al. '391 and Lumb et al. '667 would entirely eliminate the lateral airflow path between the fabric layers provided by the invention of Rock et al. '391, thus rendering the fabric of Rock et al. '391 unsatisfactory for its intended purposes, i.e., to provide a lateral passage for airflow between the layers of fabric. Therefore, a person of ordinary skill in the art would not have been motivated to combine Rock et al. '391 and Lumb et al. '667.

In light of the discussion above, Rock et al. '391 and Lumb et al. '667 cannot be properly combined in the manner proposed by the Examiner. Furthermore, even if the references could be properly combined, which Applicants do not concede, the combination does not teach or suggest the limitations of Applicants' claims. For example, neither Rock et al. '391 nor Lumb et al. '667 teaches or suggests forming the surface worn against the wearer's skin with discrete pillar regions of relatively deeper pile spaced apart and isolated from each other by regions of relatively shorter pile or no pile forming a plurality of channels passing among the discrete pillar regions and open to the wearer's skin, the channels defining insulation regions to contain a cushion of air for promoting warmth under static conditions during periods of wearer inactivity and defining circulation regions creating avenues for flow of air and enhanced evaporation of moisture from the skin of the wearer for a heat dissipation or cooling effect during periods of physical activity by the wearer. This combination of features is not taught nor suggested by Rock et al. '391 or Lumb et al. '667, both of which describe a conventional napped surface (see Rock et al. '391 at col. 2, lines 54-60; see Lumb et al. '667 at col. 3, lines 30-34; and see Declaration of Rock). The combination of Rock et al. '391 with Lumb et al. '667 does not teach or suggest discrete regions of raised fibers and surrounding regions of lesser or no pile height that define

channels, as claimed. The Examiner has taken the position, based on her review of FIG. 2 of Rock et al. '391, that fibers of the first fabric layer of Rock et al. '391 are raised in a regular pattern, and that the raised portions define the boundaries for intersecting rows and columns. Applicants respectfully submit that this is a mischaracterization of Rock et al. '391. In particular, FIG. 2 of Rock et al '391 is described as a side view of the spacer fabric showing the nap face of the top fabric layer. (col. 1, lines 61-62). Although for illustrative purposes, the nap face of the top fabric layer appears to include distinct areas of raised fibers, in practice, the top fabric layer is covered with a substantially continuous bed of raised fibers. In other words, the entire top fabric layer is covered with fibers raised to a generally uniform pile height. Therefore, the raised portions do not define intersecting rows or columns. Similarly, Rock et al. '391 does not describe discrete regions of raised fibers and surrounding regions of lesser or no pile height that define intersecting channels passing among the discrete regions of raised fibers.

In light of the discussion above, Applicants submit each of Rock et al. 391 and Lumb et al. 667, whether taken alone and in any proper combination, fails to teach or to suggest all of the limitations of Applicants' claims.

Furthermore, a person of ordinary skill in the art would not have been motivated to combine Rock et al. '391 and Lumb et al. '667, or even is so motivated, would not have achieved, Applicants' invention, as now more clearly claimed. In particular, the fabric of Lumb et al. '667, as noted above, provides improved transportation of moisture from the inner fabric layer to the outer fabric layer, but the rate of evaporation is limited, causing excess moisture to back up into the inner layer, which wets the wearer's skin and causes discomfort (see, e.g., p. 1, lines 24-27). Rock et al. '391 provides improved evaporation, e.g. as compared to Lumb et al. '667, by providing spacing between the inner layer and the outer layer that allows air to flow between the layers. However, neither Rock et al. '391 nor Lumb et al. '667 provides airflow between the inner fabric layer and the wearer's skin (see, e.g., p. 2, lines 5-8). Thus fabric of Applicants' invention is not found in the prior art.

Claims 5 and 8-11 are discussed in the action with respect to Rock et al. '391 and Lumb et al. '667, but not expressly rejected. In any event, Applicants do not concede that the inventions

of claims 5 and 8-11 reflect only application of routine skill in the art for discovery of optimum values of result effective variables. Rather, regurgitation of claim limitations as optimums does not make these limitations obvious without citation of prior art for teaching or suggestion of the basis structure. No such teaching or suggestion is to be found in the prior art.

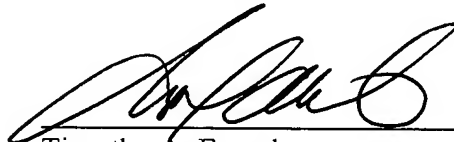
For at least the reasons discussed above, Applicants submit that this patent application is now in condition for allowance. Early favorable action is solicited.

Submitted herewith is a check for \$290.00 in payment of the fees for extra claims. Please apply any additional charges, or make any credits, to deposit account 06-1050.

Respectfully submitted,

Date: _____

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